



(Submitted via ECFS)

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

Re: Expanding Flexible Use of the 3.7-4.2 GHz Band, GN Docket No. 18-122

Dear Ms. Dortch:

Hawaii Pacific Teleport, L.P. (“HPT”) submits this *ex parte* letter regarding future uses of the 3.7 to 4.2 GHz band (“C-band”). Recent reports indicate that the Commission’s goal is to reallocate 300 MHz of spectrum in the C-band.¹ HPT submits these *ex parte* comments to request that the Commission ensure that sufficient C-band capacity remains available for FSS use and to adopt technical rules that fully protect FSS operations.

HPT offers satellite and fiber-based communications transport and connectivity around the Pacific Rim. Among other things, HPT’s satellite services act as a vital communications link for a number of isolated pacific islands. HPT’s services support a variety of communications services, including telephony, IP connectivity, and television broadcasting services. Among the most critical aspects of HPT’s satellite service is the redundancy it provides to remote island communities for telephone, internet access and other IP connectivity. The requirement is to

¹ Forrester, Chris (October 29, 2019). *Forrester Reports x 2: FCC Still On Track for C-Band Spectrum Decision ALSO Maxar and Thales Alenia Compete for Telesat*, http://www.satnews.com/story.php?number=1127782375&utm_source=Satnews&utm_campaign=e7e9b81fa4-EMAIL_CAMPAIGN_2019_11_04_03_20&utm_medium=email&utm_term=0_88f38d81f3-e7e9b81fa4-70578053&mc_cid=e7e9b81fa4&mc_eid=93eef51d1b.



provide access to communications when there is no fiber connectivity available anywhere in the area. These instances occur through multiple scenarios, including but not limited to, lack of proximity to fiber landing points and weather related outages for these areas that do not otherwise have access to fiber. Communication services in these remote island communities generally depend on satellite transport links to major points of presence located in islands with more robust infrastructure like Hawaii and Guam, where they can interconnect with the communications networks and undersea cables connecting to Asia, and the Continental United States. These services are particularly critical for first responders and the 911 services.

While undersea cables connect many of the islands HPT serves, the remote location of pacific islands make undersea cable outages (as recently occurred in Tonga)² particularly devastating for these communities. As the Commission is well aware, many modern services depend on internet or data connectivity. Hospitals rely on internet connected monitoring devices; weather stations (which can be particularly important for costal and island communities) use internet connectivity to produce accurate weather forecasts, and public safety agencies use IP connected communications devises. Many schools, and their students, also need internet access to complete their daily lesson plans. And, of particular importance here, U.S. military installations on a number of the islands HPT serves use IP/data connectivity to fulfill their vital national security functions.

² Jon Brodtkin, *Undersea cable damage wipes out most Internet access in Tonga islands*, arstechnica.com (Jan. 25, 2019, 1:22 PM), <https://arstechnica.com/information-technology/2019/01/undersea-cable-damage-wipes-out-most-internet-access-in-tonga-islands/>.



C-band satellite use offers technical advantages in the areas served by HPT. C-band satellite coverage provides a much larger footprint ensuring all sites can operate under one satellite. Ku-band and Ka-band satellites often employ spot beams that are targeted and, as a result, some of the areas may be located on the edge of the beam or not at all. In addition, the cost of C-band capacity is a fraction of the cost of more expensive Ku-band/Ka-band, which is too expensive for some of these underserved areas. Above all, for all potential solutions C-band frequencies suffer far less attenuation from poor weather conditions. For example, Ku- and Ka- are not effective during periods of heavy rainfall (“rain fade”), as we saw during the last typhoon, only C Band is capable of sustaining connectivity during conditions of heavy rain. Weather conditions for the pacific islands makes Ku- and Ka- band unfeasible for the applications in question.

In many cases, HPT has no viable alternative to C-band services. As noted above, undersea cables do service some of the pacific islands, but installing additional new cables would take years of planning and deployment and cost significantly more than HPT’s satellite service. Installing another undersea cable also would not provide the same kind of backup resiliency as HPT’s satellite service because multiple undersea cables are similarly susceptible to damage (such as from super typhoons like the one the Mariana Islands experienced last year).

Given the critical nature of many of the services provided in these underserved areas and the importance to the public interest surrounding the delivery of services to these areas, including the lack of viable alternative methods of serving island communities, HPT advocates that the Commission consider these needs while determining the amount of C-band capacity to be



allocated to 5G licensees. Furthermore, the Commission should ensure that sufficient C-band spectrum remains available for FSS use and adopt technical rules that fully protect FSS operations.

Sincerely,

Leeana Smith-Ryland
Chief Executive Officer